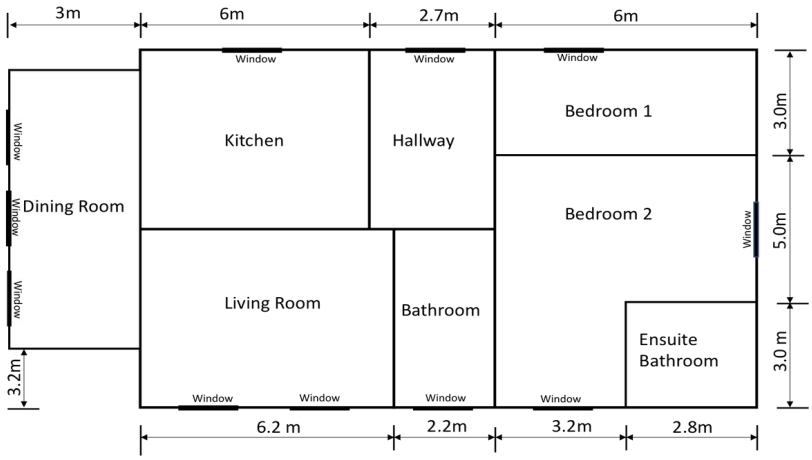
BTEC Assignment Brief

Qualification	Pearson BTEC International Level 3 Diploma in Building Services Engineering Pearson BTEC International Level 3 Extended Diploma in Building Services Engineering
Unit number and title	**Unit 28: Electrical Principles and Installations Standards in Building Services Engineering**
Learning aim(s) (For NQF only)	A: Understand the regulations and legislation applicable to electrical installations. B: Undertake the design of an electrical installation of a property. C: Develop a specification for materials, components and ancillary equipment for an electrical installation.
Assignment title	Electrical installation for a domestic dwelling.
Assessor	
Issue date	
Hand in deadline	

Vocational Scenario or Context	You are employed as a training building service engineer working for a consulting engineering company. You have been asked to support the design of an electrical installation for a new single storey domestic dwelling. The plan of the dwelling is shown in Figure 1 below.  Figure 1- Plan of dwelling

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Task 1	You have been asked to support the preparation of a briefing report for the client. The report is required to explain the regulations and legal requirements governing the electrical installation for new home. You are to explain the regulations and legal requirements governing: (a) the design of the final electrical installation for the new home. (b) the inspection testing and commissioning regime for the new electrical installation (c) the supply and safety of electricity to the construction site.
Checklist of evidence required	A report responding to a client brief in terms of all legal and electrical requirements.
Criteria covered by this task:	
Unit/Criteria reference	To achieve the criteria, you must show that you are able to:
AB.D1	Justify the regulations and legal requirements that need to be considered when designing an electrical installation for a given scenario.
A.M1	Assess the regulations and legal factors that need to be considered in relation to electrical installations for a given scenario.
A.P1	Explain the regulations and legal factors that need to be considered in relation to electrical installations.
Task 2	You have been asked to assist with the preparation of the design of the electrical installation for the new home. You are to: (a) Specify appropriate components and fittings for each room of the dwelling based on appropriate regulations and standards. (b) Prepare drawings of the circuit wiring installation for the new home, including the positioning and requirements of all key electrical components. (c) Complete calculations to determine the current power requirements for each room. (d) Recommend a consumer unit to serve the property. (e) Draft a short-written report to the client justifying your proposed design and outlining how it complies with the legal and regulation requirements.
Checklist of evidence required	A portfolio of drawings, calculations, component specifications and written evidence governing the electrical installation for the new home.
Criteria covered by this task:	
Unit/Criteria reference	To achieve the criteria, you must show that you are able to:
B.D2	Produce a comprehensive electrical system design that fully meets legislative requirements and the needs of a given scenario.
B.M2	Produce a detailed design that meets the needs of a given scenario
B.P4	Explain the consumer unit requirements for a given scenario.
B.P3	Assess the current power requirements for each individual room.

B.P2	Produce a wiring diagram for a domestic electrical installation that included the positioning and requirements of all the key components.
C.D.3	Evaluate the selection of a consumer unit, materials and fittings that fully meet the needs of a given scenario.
C.M.3	Justify the selection of a consumer unit, materials and fittings that meet most of the needs of a given scenario.
C.P6	Produce schedule of materials and equipment that meet some of the needs of a given scenario.
C.P5	Select a consumer unit to meet the needs of a given scenario.

Sources of information to support you with this Assignment	Pearson BTEC National Construction Student Book Authors: Simon Topliss, Mike Hurst, Simon Cummings. Sohrab Donyavi Sustainable Construction Green Building Design and Delivery, 4th Edition, Charles J Kilbert
Other assessment materials attached to this Assignment Brief	